

## Claims

1. (previously presented) Apparatus for facilitating trading two items from the group of items consisting of commodities and financial instruments, said apparatus comprising:

at least two agents that want to trade the items;

a trading channel between each pair of agents allowing for the execution of trades;

flow limits on the traded items and on any underlying instruments to be exchanged upon settlement of the traded items; and

a central computer coupled to the at least two agents, said computer adapted to convey to each agent individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account all of the current flow limits between all pairs of agents.

2. (previously presented) The apparatus of claim 1 wherein both agents are coupled to the central computer when they are trading.

3. (previously presented) Apparatus for facilitating trading two items from the group of items consisting of commodities and financial instruments, said apparatus comprising:

at least two agents that want to trade the items;

a trading channel between each pair of agents allowing for the execution of trades;

flow limits on the traded items and on any underlying instruments to be exchanged upon settlement of the traded items; and

a central computer coupled to the at least two agents, said computer adapted to convey to each agent individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account all of the current flow limits between all pairs of agents;

wherein at least one agent is a credit-extending agent.

4. (previously presented) Apparatus for facilitating trading two items from the group of items consisting of commodities and financial instruments, said apparatus comprising:

at least two agents that want to trade the items;

a trading channel between each pair of agents allowing for the execution of trades;

flow limits on the traded items and on any underlying instruments to be exchanged upon settlement of the traded items; and

a central computer coupled to the at least two agents, said computer adapted to convey to each agent individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account all of the current flow limits between all pairs of agents;

wherein there are at least two credit-extending agents having trading channels with a single non-credit-extending agent.

5. (previously presented) Apparatus for facilitating trading two items from the group of items consisting of commodities and financial instruments, said apparatus comprising:

at least two agents that want to trade the items;

a trading channel between each pair of agents allowing for the execution of trades;

flow limits on the traded items and on any underlying instruments to be exchanged upon settlement of the traded items; and

a central computer coupled to the at least two agents, said computer adapted to convey to each agent individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account all of the current flow limits between all pairs of agents;

wherein there are at least two trade-seeking agents from the group of agents consisting of credit-extending agents and non-credit-extending agents, each such trade-seeking agent having a trading channel with a single credit-extending agent, wherein said credit-extending agent has instructed the central computer that it is permissible to have two such trade-seeking agents perform trades via said credit-extending agent.

6. (previously presented) The apparatus of claim 5 wherein the two trade-seeking agents subject to said instruction from said credit-extending agent do not have an available trading channel between them, and the credit-extending agent yields some of its trading channel capacity to said two trade-seeking agents.

7. (previously presented) Apparatus for facilitating trading two items from the group of items consisting of commodities and financial instruments, said apparatus comprising:

at least two agents that want to trade the items;

a trading channel between each pair of agents allowing for the execution of trades;

flow limits on the traded items and on any underlying instruments to be exchanged upon settlement of the traded items; and

a central computer coupled to the at least two agents, said computer adapted to convey to each agent individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account all of the current flow limits between all pairs of agents;

wherein there are at least two credit-extending agents having trading channels with a single non-credit-extending agent; and

there are at least two non-credit-extending agents having trading channels with the same credit-extending agent, which credit-extending agent has instructed the central computer that it is permissible to have two non-credit-extending agents perform trades via said credit-extending agent.

8. (previously presented) The apparatus of claim 1 wherein the central computer updates the current tradable information after each trade.

9. (previously presented) Apparatus for facilitating the trading of items from the group of items consisting of commodities and financial instruments, said apparatus comprising:

a plurality of agents that wish to trade the items, wherein each agent is coupled to at least one other agent via a trading channel;

at least one non-credit-extending agent having trading channels with at least two credit-extending agents; and

at least one commonly-coupled credit-extending agent having trading channels with at least two trade-seeking agents from the group of agents consisting of credit-extending agents and non-credit-extending agents, wherein said commonly-coupled credit-extending agent has instructed a central computer that it is permissible to have at least two such trade-seeking agents perform trades via said commonly-coupled credit-extending agent in a credit bridge, such that the central computer conveys to each agent individualized current tradable bid and offered prices and sizes to a depth, said prices, sizes, and depth automatically determined by and taking into account all of the current credit limits between all pairs of agents.

10. (previously presented) The apparatus of claim 1 further comprising a second computer coupled to the central computer, adapted to affix date and time stamps on trade orders posted by the agents.

11. (previously presented) The apparatus of claim 1 wherein at least one agent comprises a computer having an application programming interface (API), wherein the API is coupled to the central computer and enables the agent to write customized instructions to facilitate two-way communication between the agent and the central computer.

12. (previously presented) The apparatus of claim 11 wherein the agent is a credit-extending agent and the API enables the agent to update the agent's backoffice information.

13. (previously presented) The apparatus of claim 11 wherein the API is programmed to make and cancel orders.

14. (previously presented) The apparatus of claim 11 wherein the API receives and reformats the agent's current tradable bid and asked information for any traded items.

15. (previously presented) The apparatus of claim 11 wherein the API sets trading limits.

16. (previously presented) The apparatus of claim 11 wherein the API estimates how much it would cost the agent to liquidate the agent's position in a traded item.

17. (previously presented) The apparatus of claim 11 wherein the API is programmed to estimate the agent's current profit/loss amount for each item being traded.

18. (previously presented) The apparatus of claim 11 wherein the API is programmed to automatically execute trades.

19. – 42. (canceled)

43. (previously presented) A computer-implemented method for an agent to trade with a counterparty an item from the group of items consisting of commodities and financial instruments, said method comprising:

receiving from a central computer an individualized custom limit order book which takes into account multi-hop trading limits with other agents coupled to the central computer; and  
communicating an order for a commodity or a financial instrument to the central computer;  
wherein the multi-hop trading limits take into account credit extended by credit bridges between agents.

44. (previously presented) A computer adapted to facilitate trading among a plurality of agents items from the group of items consisting of commodities and financial instruments, said computer comprising:

means for converting specified input credit limits into a set of trading limits;  
coupled to the converting means, means for postulating the trading limits as a set of multi-hop trading limits, said multi-hop trading limits taking into account credit extended by credit bridges between agents; and  
coupled to the postulating means, means for communicating the multi-hop trading limits to the agents in the form of an individualized custom limit order book for each agent, taking into account all of the specified input credit limits.

45. (original) The computer of claim 44 wherein the postulating means comprises means for applying a maximum flow algorithm.

46. (previously presented) A computer readable medium comprising computer program instructions encoded on said medium for enabling an agent to trade items from the group of items consisting of commodities and financial instruments, said computer program instructions enabling said agent to perform the steps of:

receiving from a central computer an individualized custom limit order book that takes into account multi-hop trading limits with other agents coupled to the central computer; and  
communicating an order for a commodity or a financial instrument to the central computer;  
wherein the multi-hop trading limits take into account credit extended by credit bridges between agents.

47. (previously presented) A method by which a computer facilitates trading, among a plurality of agents, items from the group of items consisting of commodities and financial instruments, said computer performing the steps of:

converting specified input credit limits into a set of computerized trading limits;  
graphing a network comprising nodes representing agents, said nodes being connected by paths representing the trading limits;  
deriving from the graph a set of multi-hop trading limits between each pair of agents, said multi-hop trading limits reflecting the fact that at least one node is a credit-bridging node; and



communicating the multi-hop trading limits to the agents in the form of an individualized custom limit order book for each agent, said custom limit order book taking into account the topology of the network.

48. (original) The method of claim 47 wherein the deriving step comprises applying a maximum flow algorithm.

49. (previously presented) A first agent computer adapted to trade with other agent computers items from the group of items consisting of commodities and financial instruments, said first agent computer comprising:

a display; and

displayed on the display, an individualized custom limit order book showing, for each pair of items to be traded, multi-hop trading limits between said first agent computer and each of said other agent computers, wherein said multi-hop trading limits take into account the fact that at least one agent computer is a credit bridge between other agent computers.

50. (original) The first agent computer of claim 49, further comprising an application programming interface.

51. (original) The first agent computer of claim 49 wherein the multi-hop trading limits take into account specified input credit limits.

52. (previously presented) The first agent computer of claim 51 wherein the specified input credit limits comprise at least one limit from the group of limits consisting of position limits for lot items, position limits for quoted items, volume limits for lot items,

volume limits for quoted items, notional position limits, notional volume limits, traded item position limits, and traded item volume limits.

53. (previously presented) A method by which a first computer trades with other computers items from the group of items consisting of commodities and financial instruments, said method comprising said first computer performing the steps of:

viewing a custom limit order book showing, for each pair of items to be traded, multi-hop trading limits between said first computer and each of said other computers, wherein said multi-hop trading limits take into account the fact that at least one computer is configured to allow credit bridging; and  
executing a maneuver from the set of maneuvers comprising placing an order to be considered by other computers and taking an order placed by one of said other computers.

54. (original) The method of claim 53 wherein the step of executing a maneuver comprises taking less than an entire order.

55. (previously presented) A computer readable medium comprising computer program instructions encoded on said medium for enabling a central computer to facilitate trading, among a plurality of agents, items from the group of items consisting of commodities and financial instruments, said computer program instructions enabling said central computer to perform the steps of:

converting specified input credit limits into a set of computerized trading limits;

graphing a network comprising nodes representing agents, said nodes  
being connected by paths representing the trading limits;  
deriving from the graph a set of multi-hop trading limits between each pair  
of agents, said multi-hop trading limits reflecting the fact that at least  
one node is a credit-bridging node; and  
communicating the multi-hop trading limits to the agents in the form of an  
individualized custom limit order book for each agent, said custom limit  
order book taking into account the topology of the network.

56. (previously presented) The apparatus of claim 1 wherein an agent's flow  
limits are a function of that agent's credit limits.